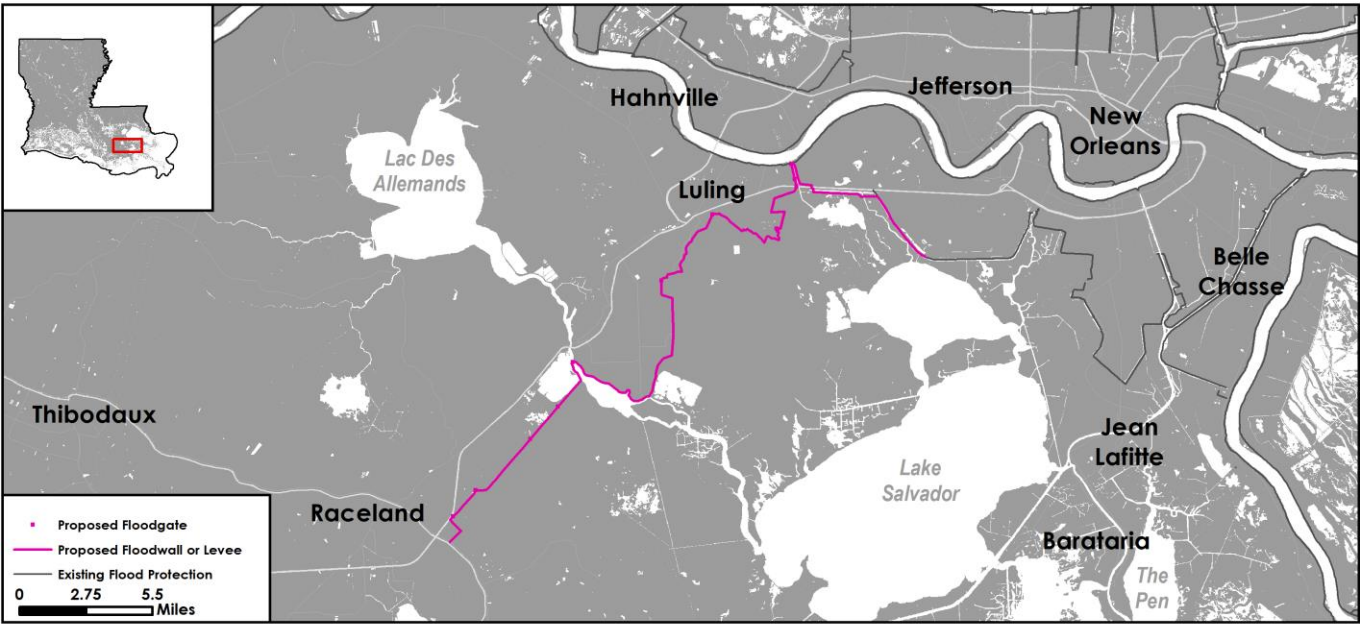


Upper Barataria Risk Reduction

Structural Protection

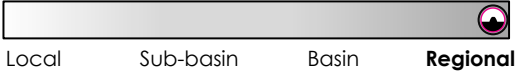
Project ID: 002.HP.06



Description

Construction of a levee to an elevation between 12.5 and 15 feet NAVD88 along Highway 90 between the West Bank and Larose. Project includes 204,300 feet of earthen levee, 8,200 feet of T-wall, (4) 10-foot sluice gates, (1) 250-foot barge gate, (2) 40-foot swing gates, and (8) pump stations with a total capacity of 6,837 cfs.

Scale of Influence



Project Location

St. Charles Parish; Lafourche Parish; Jefferson Parish

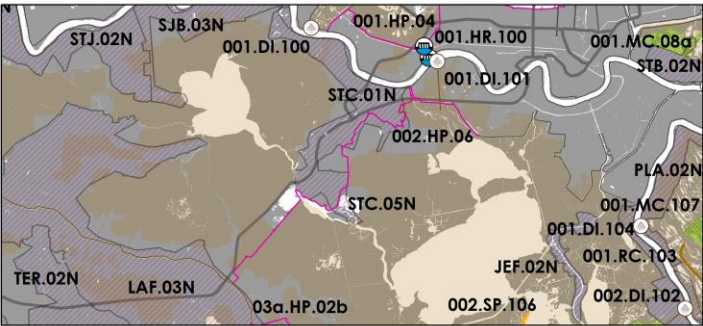
Project Duration

Planning, Engineering, and Design is estimated to take 4 years.
Construction is estimated to take 6 years.

Project Cost Estimate

	Estimated Cost
Planning/Engineering & Design	\$96,900,000
Construction	\$671,800,000
Operations & Maintenance	\$172,100,000
Total	\$940,800,000

Other Nearby Projects in the Master Plan



Other Project Area Statistics

Estimated Current Population <small>U.S. Census (2010), U.S. Dept. of Energy Oak Ridge National Laboratory, Land Scan (2011)</small>	60,400
Percent of Population who are Low-to-Moderate Income <small>American Community Survey (2006 - 2010)</small>	38%
Number of Severe Repetitive Loss Properties <small>Governor's Office of Homeland Security (2015)</small>	100

Upper Barataria Risk Reduction

Structural Protection

Project ID: 002.HP.06



Economic Damage

Structural protection projects are evaluated by how they reduce Expected Annual Damage (EAD) for a particular area. EAD represents the average direct economic damage projected to result from storm surge flooding events, from Category 1 or greater storms, in any given year, taking into account both the expected damage and the overall frequency of such storms occurring. EAD is a summary measure of the potential damage averaged over the entire distribution of possible flood events. Damage is also summarized at various return periods (DRP), e.g., 100-year damage being the damage with a 1% chance of occurring or being exceeded in a given year. The following are the economic damage summaries for the Future Without Action (FWOA) and Future With Project (FWP) conditions, for the project as a whole (Table 2), and for each Risk Region (Table 3). EAD and DRP values are reported in millions of dollars.

Table 2: Expected Annual Damage

Year	FWOA	FWP	Difference
0	\$936 M	-	-
25	\$3,273 M	\$2,767 M	\$507 M
50	\$9,089 M	\$8,472 M	\$618 M

Critical Infrastructure

The data in Table 1 was provided by GOHSEP and the Homeland Security Infrastructure Program (HSIP). "Protected" assets are those that otherwise flood in FWOA conditions but are protected by the project.

Table 1: Critical Infrastructure Counts

Asset Type	Protected	Total
Airport Facility	-	-
Gas Processing	-	16
Government/Military	-	2
Electric Power Substation	6	38
Liquefied Natural Gas Terminal	-	-
Louisiana Offshore Oil Port	-	1
Manufacturing/Chemical	3	11
Electric Power Plant	1	25
Port	-	-
Petroleum Pump Station	2	15
Refinery	-	4
Water and Sewer	-	5
Strategic Petroleum Reserve	-	-
Total	12	117

Table 3: Economic Damage by Return Period at Year 50

Risk Region	50 Year		100 Year		500 Year	
	FWOA	FWP	FWOA	FWP	FWOA	FWP
Assumption	\$4,525 M	\$3,735 M	\$4,661 M	\$3,770 M	\$4,731 M	\$3,803 M
Jefferson - Grand Isle	\$381 M	\$381 M	\$383 M	\$383 M	\$416 M	\$458 M
Jefferson - Lafitte/Barataria	\$1,609 M	\$1,641 M	\$1,633 M	\$1,647 M	\$1,655 M	\$1,655 M
Jefferson - Marrero/Gretna	\$104 M	\$107 M	\$302 M	\$2,541 M	\$15,401 M	\$48,436 M
Lafourche - Larose/Golden Meadow	\$9,480 M	\$9,318 M	\$9,657 M	\$9,584 M	\$9,711 M	\$9,699 M
Lafourche - Lower	\$223 M	\$221 M	\$227 M	\$225 M	\$228 M	\$226 M
Lafourche - Raceland	\$23,892 M	\$21,331 M	\$25,279 M	\$23,055 M	\$28,269 M	\$26,502 M
Plaquemines - Belle Chasse	< \$1 M	< \$1 M	< \$1 M	< \$1 M	\$2 M	\$1,918 M
Plaquemines - Grand Bayou	\$106 M	\$104 M	\$106 M	\$104 M	\$106 M	\$104 M
Plaquemines - West Bank	\$2,944 M	\$2,919 M	\$3,056 M	\$3,035 M	\$3,087 M	\$3,056 M
St. Charles - Ama	\$0 M	\$0 M	\$0 M	\$0 M	< \$1 M	\$223 M
St. Charles - Hahnville/Luling	\$14,838 M	\$6,292 M	\$15,129 M	\$6,897 M	\$15,330 M	\$9,698 M
St. Charles - Salvador	\$138 M	\$150 M	\$140 M	\$151 M	\$143 M	\$153 M
St. James - Vacherie	\$1,833 M	\$323 M	\$1,929 M	\$502 M	\$2,019 M	\$847 M
Total	\$60,073 M	\$46,521 M	\$62,503 M	\$51,895 M	\$81,097 M	\$106,780 M